



SAFETY DATA SHEET

For

Dongguan Large Electronics Co., Ltd.

Floor 5, Block A, Gosun Science Park, Longxi Road 5, Zhouxi, Nancheng District, Dongguan City,
Guangdong, China.

And for their product

LITHIUM POLYMER BATTERY PACK

Model/type reference : SBR-27LI

Nominal Voltage : 3.7V

Typical Capacity : 1800mAh (6.7Wh)

Version number : V2.0

Revision date : 17-January-2017

Prepared by : **Shenzhen NTEK Testing Technology Co., Ltd.**
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Compiled by (name+ signature) ..: Joy.Chen

Approved by (+ signature) : Kevin Zou



Section 1- Identification of the Substance/Preparation and of the Company/Undertaking

Product Identifier

Product Name: LITHIUM POLYMER BATTERY PACK

Model No.: SBR-27LI

Other means of identification

Synonyms: None

Recommended use of the chemical and restrictions on use

Recommended Use: LITHIUM ION BATTERIES

Uses advised against: No information available

Details of the supplier of the safety data sheet

Manufacturer's/ Supplier Name: Dongguan Large Electronics Co., Ltd.

Address: Floor 5, Block A, Gosun Science Park, Longxi Road 5, Zhouxi, Nancheng District, Dongguan City, Guangdong, China.

Telephone number of the manufacturer/supplier: +86-769-28055192

Emergency Telephone Number (24h): +86-769-28055192

E-mail address: sunfeilin@juda.cn

Section 2 – Hazards Identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) this product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

| | |
|--|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Skin sensitization | Category 1 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

GHS Label elements, including precautionary statements

Emergency Overview

| |
|---|
| <p>Signal word: Danger</p> <p>Hazard Statements</p> <p>Causes skin irritation</p> <p>Causes serious eye irritation</p> <p>May cause an allergic skin reaction</p> <p>May cause cancer</p> |
|---|



This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold.

Intended use of the product should not result in exposure to the chemical substance This is a battery. In case of rupture: the above hazards exist.

Appearance Black

Physical State Solid

Odor Odorless

| | |
|---|--|
| <p>Precautionary Statements - Prevention</p> | <p>Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Contaminated work clothing should not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product</p> |
| <p>Precautionary Statements - Response</p> | <p>IF exposed or concerned: Get medical advice/attention Specific treatment (see supplemental first aid instructions on this label) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of soap and water Take off contaminated clothing and wash before reuse If skin irritation or rash occurs: Get medical advice/attention</p> |
| <p>Precautionary Statements - Storage</p> | <p>Store locked up</p> |
| <p>Precautionary Statements - Disposal</p> | <p>Dispose of contents/container to an approved waste disposal plant</p> |
| <p>Hazards not otherwise classified (HNOC)</p> | <p>Not applicable</p> |
| <p>Unknown Toxicity</p> | <p>-</p> |
| <p>Other information</p> | <p>May be harmful if swallowed Very toxic to aquatic life with long lasting effects Repeated or prolonged skin contact may cause allergic reactions with susceptible persons</p> |



| | |
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| Interactions with Other Chemicals | No information available. |
|--|---------------------------|

Section 3 – Composition/Information on Ingredients

| Chemical Name | CAS Number | Weight-% | Trade Secret |
|--|------------|----------|--------------|
| Lithium Cobalt Oxide (CoLiO ₂) | 12190-79-3 | 40-44 | * |
| 1,1-Difluoroethylene polymer | 24937-79-9 | 0.5-1.5 | * |
| Aluminum foil | 7429-90-5 | 4-6 | * |
| Graphite | 7782-42-5 | 17-21 | * |
| Styrene-Butadiene polymer | 9003-55-8 | ≤1 | * |
| Cellulose, carboxymethyl ether | 9000-11-7 | ≤1 | * |
| Copper | 7440-50-8 | 8-11 | * |
| Polyethylene | 9002-88-4 | 2.5-3.5 | * |
| Phosphate(1-), hexafluoro-, lithium | 21324-40-3 | 12-16 | * |
| Ethylmethyl carbonate | 623-53-0 | | * |

* The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4 – First-aid Measures

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| General Advice | <p>First aid is upon rupture of sealed battery.</p> <p>Eye contact: If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.</p> <p>Skin contact: Wash off immediately with soap and plenty of water for at least 15 minutes. In the case of skin irritation or allergic reactions see a physician. May cause an allergic skin reaction.</p> <p>Inhalation: Remove to fresh air. If symptoms persist, call a physician. Get medical attention immediately if symptoms occur.</p> <p>Ingestion: Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician.</p> <p>Self-protection of the first aider: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).</p> |
| Most important | Most important symptoms and effects: Itching. Coughing and/ or |



| | |
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| symptoms and effects, both acute and delayed | wheezing. |
| Indication of any immediate medical attention and special treatment needed | Notes to Physician: Treat symptomatically. May cause sensitization of susceptible persons. |

Section 5 – Fire-fighting Measures

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|--|--|
| Suitable extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing Media | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Specific Hazards arising from the chemical | Product is or contains a sensitizer. May cause sensitization by skin contact. |
| Hazardous Combustion Products | Carbon oxides. |
| Explosion Data | Sensitivity to Mechanical Impact: No. Sensitivity to Static Discharge: No. |
| Protective Equipment and precautions for firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |

Section 6 – Accidental Release Measures

| | |
|---|---|
| Personal Precautions, protective equipment, and emergency procedures | Personal Precautions: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Other Information: Refer to protective measures listed in Sections 7 and 8. |
| Environmental Precautions | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. |
| Methods and material for containment and cleaning up | Methods for Containment: Prevent further leakage or spillage if safe to do so. Methods for cleaning up: Pick up and transfer to properly labeled containers. |

Section 7 – Handling and Storage



| | |
|---|---|
| Precautions for safe handling | Handling: In case of rupture. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. |
| Conditions for safe storage, including any incompatibilities | Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Products: Strong acids. Strong oxidizing agents. Strong bases. |

Section 8 – Exposure Controls and Personal Protection

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|----------------------------|--|---|--|
| Graphite 7782-42-5 | TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers | TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural | IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ respirable dust |
| Copper 7440-50-8 | TWA: 0.2 mg/m ³ fume TWA: 1 mg/m ³ Cu dust and mist | TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist | IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume |
| Aluminum foil 7429-90-5 | TWA: 1 mg/m ³ respirable fraction | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust |



| | | | |
|---|------------------------------|---|--|
| Phosphate(1-), hexafluoro-, lithium 21324-40-3 | TWA: 2.5 mg/m ³ F | TWA: 2.5 mg/m ³ F TWA: 2.5 mg/m ³ dust (vacated) TWA: 2.5 mg/m ³ | |
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | TWA: 0.02 mg/m ³ | | |

*ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value
 OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH
 IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

| | |
|--|--|
| Appropriate engineering controls | Engineering Measures: Showers Eyewash stations Ventilation systems. |
| Individual protection measures, such as personal protective equipment | Eye/Face Protection: If splashes are likely to occur: Wear safety glasses with side shields (or goggles). None required for consumer use. Skin and Body Protection: Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves. Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. |

Section 9 - Physical and Chemical Properties

| | |
|-----------------------------|---|
| Physical Properties | Physical state: Solid |
| | Appearance: Black and Prismatic |
| | Color: Black |
| | Odor: Odorless |
| | Odor Threshold: No information available |
| Chemical Properties: | |



| Property | Values | Remarks/ Method |
|---|--|-----------------|
| pH | No data available | None known |
| Melting / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash Point | No data available | None known |
| Evaporation Rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air Upper flammability limit Lower flammability limit | No data available No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Specific Gravity | No data available | None known |
| Water Solubility | Insoluble in water | None known |
| Solubility in other solvents | No data available | None known |
| Partition coefficient: n-octanol/water | 0.00001 | None known |
| Autoignition temperature | 130 °C | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | 0.00001 | None known |
| Explosive properties | No data available | |
| Oxidizing Properties | No data available | |

Other Information

| | |
|----------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |
| Particle Size Distribution | No data available |

Section 10 - Stability and Reactivity

| | |
|------------------------------------|--|
| Reactivity | No data available. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | None known based on information supplied. |



| | |
|----------------------------------|--|
| Incompatible materials | Strong acids. Strong oxidizing agents. Strong bases. |
| Hazardous Decomposition Products | Carbon oxides. |

Section 11 - Toxicological Information

Information on likely routes of exposure

| | |
|----------------------------|---|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:. |
| Inhalation | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
| Eye Contact | Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to eyes. May cause redness, itching, and pain. May cause temporary eye irritation. |
| Skin Contact | Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to skin. Prolonged contact may cause redness and irritation. |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------|-----------------------|-------------|-----------------|
| Graphite 7782-42-5 | > 10000 mg/kg (Rat) | - | - |

| | |
|---|--|
| Information on toxicological effects | Symptoms: Erythema (skin redness). May cause redness and tearing of the eyes. Itching. Rashes. Hives. |
| Delayed and immediate effects as well as chronic effects from short and long-term exposure | Sensitization: May cause sensitization of susceptible persons. May cause sensitization by skin contact. Mutagenic Effects: No information available. Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen |

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|----------|-----|------|
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | A3 | Group 2B | | X |

ACGIH (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)



Group 1 - Carcinogenic to Humans
 Group 2B - Possibly Carcinogenic to Humans
 Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
 Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

| | |
|---------------------------------|--|
| Reproductive Toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE). |
| Chronic Toxicity | Contains a known or suspected carcinogen. Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse liver effects. |
| Target Organ Effects | Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Central Vascular System (CVS).Kidney. Liver. Lungs. Heart. |
| Aspiration Hazard | No information available. |

Numerical measures of toxicity Product Information

| | |
|--|--|
| The values which are on the right are calculated based on chapter 3.1 of the GHS document. | ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-dust/mist) |
|--|--|

Section 12 - Ecological Information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|---------------------|---|--|----------------------------|----------------------------|
| Copper 7440-50-8 | 96h EC50: 0.031 - 0.054 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.0426 - 0.0535 mg/L (Pseudokirchneriella subcapitata) | 96h LC50: 0.0068 - 0.0156 mg/L (Pimephales promelas) 96h LC50: = 0.112 mg/L (Poecilia reticulata) 96h LC50: = 0.3 mg/L (Cyprinus carpio) 96h LC50: = 0.8 mg/L (Cyprinus carpio) 96h LC50: = 1.25 mg/L (Lepomis macrochirus) 96h LC50: = | | 48h EC50: = 0.03 mg/L |



| | | | | |
|--|--|--|--|--|
| | | 0.052 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.2 mg/L (Pimephales promelas) 96h LC50: < 0.3 mg/L (Pimephales promelas) | | |
|--|--|--|--|--|

| | |
|--------------------------------------|---------------------------|
| Persistence and Degradability | No information available. |
| Bioaccumulation | No information available |
| Other adverse effects | No information available. |

Section 13 – Disposal Considerations

Waste treatment methods

Disposal methods: This material, as supplied, is not a hazardous waste according to Federal regulations (40CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

California Hazardous Waste Codes 141

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste |
|--|----------------------------|
| Aluminum foil 7429-90-5 | Ignitable powder |
| Copper 7440-50-8 | Toxic |
| Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3 | Toxic |

Section 14 – Transport Information

The LITHIUM POLYMER BATTERY PACK as stated in Appendix is made in compliance to the requirements stated in the latest edition of the IATA Dangerous Goods Regulations Packing Instruction 965 section IB or 966 section II. However, if those Li-Ion batteries are packed with an equipment, then it is the responsibility of the shipper to ensure that the consignment are packed in compliance to the latest edition of the IATA Dangerous Goods Regulations Packing Instruction section II of 967.

With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing instruction 965 section IB or 966 section II (2017-2018 Edition).

- The International Air transport Association (IATA) Dangerous Goods Regulations, Packing instruction 965 section IB or 966 section II (58th Edition, 2017).
- Special provision 188 of the International Maritime Dangerous Goods (IMDG) Code (Amendment 37-14 Edition).
- The US Hazardous Materials Regulation 49 CRF (Code of Federal Regulations), sections 173-185 Lithium batteries and cells.
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries, Rev.5, Amend.2

These products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Tests and Criteria.

Test results of the UN Recommendation on the Transport of Dangerous Goods

| Manual of Test and Criteria (38.3 Lithium battery) | | | |
|---|------------------------|---------------------|---------------|
| No. | Test items | Test results | Remark |
| T1 | Altitude simulation | Pass | |
| T2 | Thermal test | Pass | |
| T3 | Vibration | Pass | |
| T4 | Shock | Pass | |
| T5 | External short circuit | Pass | |
| T6 | Impact / Crush | Pass | |
| T7 | Overcharge | Pass | |
| T8 | Forced discharge | Pass | |

Additional Requirements for air transport:

1. Cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit.
2. Cells and batteries must be manufactured under a quality management program.
3. The Watt-hour rating must be marked on the outside of the battery case except those manufactured before 1 January 2009.
4. Cells and batteries must be packed in strong outer packagings.
5. Cells and batteries must be packed in inner packagings that completely enclose the cell or battery. To provide protection from damage or compression to the batteries, the inner packagings must be placed in a strong rigid outer packaging of one of the packaging types shown below.
6. Each consignment must be accompanied with a document with an indication that:
 - the package contains lithium ion cells or batteries;
 - the package must be handled with care and that a flammability hazard exists if the package is damaged;
 - special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and

- a telephone number for additional information.
- 7. Each package must be labelled with a lithium battery handling label (Figure 7.4.H) in addition to the Class 9 hazard label (Figure 7.3.W) and Cargo Aircraft Only label.
Each package must be marked in accordance with the requirements of 7.1.4.1(a) and (b) and in addition the net weight when required by 7.1.4.1(c) must be marked on the package.
- 8. Each package must be capable of withstanding a 1.2 m drop test in any orientation without (applicable to PI 965 and 966 only):
 - damage to cells or batteries contained therein;
 - shifting of the contents so as to allow battery to battery (or cell to cell) contact;
 - release of contents.
- 9. Each package must be labelled with a lithium battery handling label (Figure 7.4.H). (applicable to PI 966 only)
- 10. A Shipper's Declaration for Dangerous Goods is not required. (applicable to PI 966 only)
- 11. Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with their responsibilities.
- 12. The equipment must be secured against movement within the outer packaging and must be equipped with an effective means of preventing accidental activation. (applicable to PI 966 only)
- 13. The maximum number of batteries in each package must be the minimum number required to power the equipment plus two spares. (applicable to PI 966 only)
- 14. The words "Lithium ion batteries in compliance with Section II of PI 966" must be included on the air waybill, when an air waybill is used. The information should be shown in the "Nature and Quantity of Goods" box of the air waybill. (applicable to PI 966 only)
- 15. Maximum net quantity of lithium ion cells must not be more than 5 kg. (applicable to PI 966 only)

Section 15 - Regulatory Information

International Inventories

TSCA: Complies

DSL: All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|-------------------------------|------------|----------|-------------------------------|
| Aluminum foil | 7429-90-5 | 4-6 | 1.0 |
| Copper | 7440-50-8 | 8-11 | 1.0 |
| Lithium Cobalt Oxide (CoLiO2) | 12190-79-3 | 40-44 | 0.1 |

SARA 311/312 Hazard Categories

| | |
|---------------------|----|
| Acute Health Hazard | No |
|---------------------|----|



| | |
|--|----|
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Copper 7440-50-8 | | X | X | |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|----------------------------|--------------------------|------------------------------------|--|
| Copper 7440-50-8 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Aluminum foil 7429-90-5 | | | |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|--|------------|---------------|--------------|--------------|----------|
| Graphite 7782-42-5 | X | X | X | | |
| Copper 7440-50-8 | X | X | X | X | X |
| Aluminum foil 7429-90-5 | | X | | X | |
| Lithium Cobalt Oxide (CoLiO2) 12190-79-3 | X | | X | X | X |

International Regulations

Mexico

National occupational exposure limits

| Component | Carcinogen Status | Exposure Limits |
|--------------------------------|-------------------|----------------------------------|
| Graphite 7782-42-5 (17-21%) | | Mexico: TWA= 2 mg/m ³ |
| Copper | | Mexico: TWA= 1 mg/m ³ |



| | | |
|-----------------------------------|--|---|
| 7440-50-8 (8-11%) | | Mexico: TWA= 0.2 mg/m ³ Mexico: STEL= 2 mg/m ³ |
| Aluminum foil 7429-90-5 (4-6%) | | Mexico: TWA= 10 mg/m ³ |

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

Non-controlled

Section 16 - Other Information

| | | | | |
|------|------------------|----------------|-------------------|---|
| NFPA | Health Hazards 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards - Personal Protection X |
| HMIS | Health Hazards 0 | Flammability 0 | Physical Hazard 0 | |

Revision Date: 17-January-2017

Revision Note: No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

--End of Safety Data Sheet--

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